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1974 EVALUATION OF SWEET CORN CULTIVARS

1000 West Lane Avenue
Columbus, Ohio

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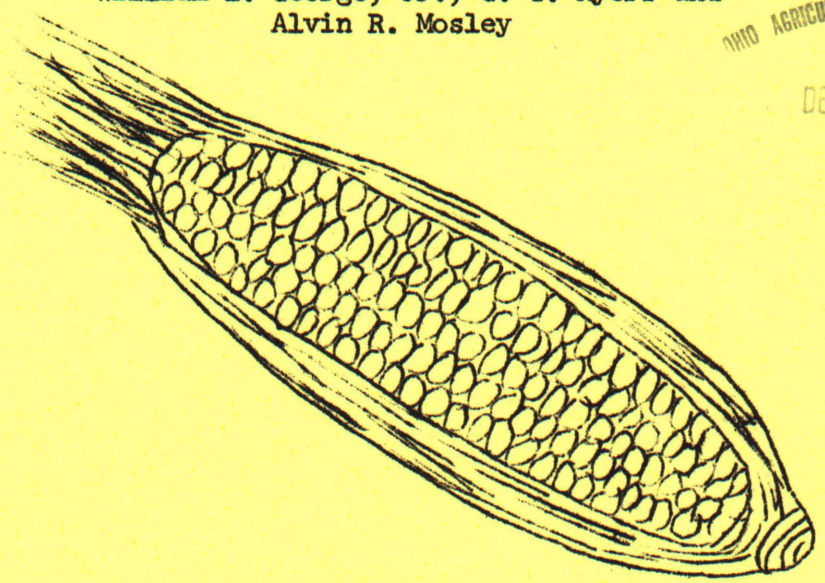
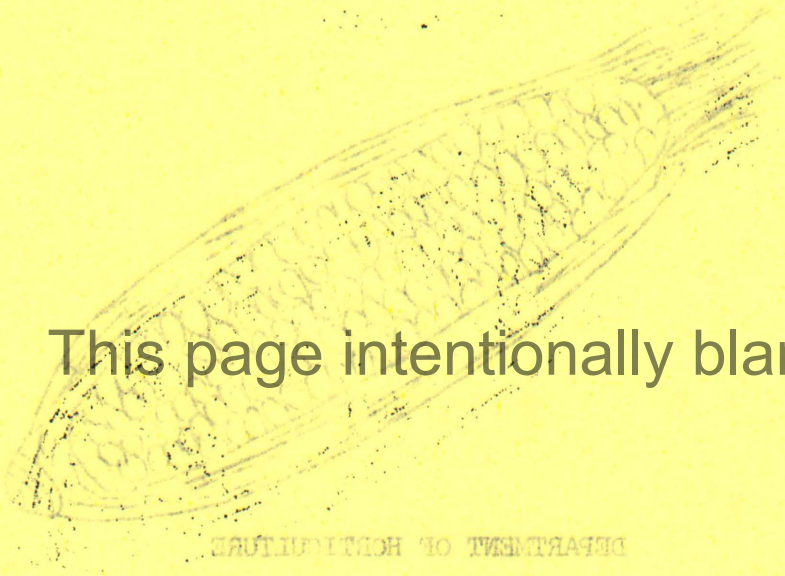


DEPARTMENT OF HORTICULTURE

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

WOOSTER, OHIO



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1974 Evaluation of Sweet Corn Cultivars
Columbus, Ohio

William M. Brooks,[1] James D. Utzinger,[1] William L. George Jr.,[1]
Gerald G. Myers,[1] and Alvin R. Mosley[2]

The 1974 Sweet Corn Cultivar Trials at The Ohio State University Horticultural Farm, 1000 West Lane Avenue, Columbus, consisted of twenty-eight cultivars which were replicated four times and fifty-two cultivars in non-replicated, single plots. Cultivars Seneca 60-11 and Earliking received moderate racoon damage with Seneca XP-192 being severely damaged by racoon. These damaged cultivars were all in the non-replicated plots.

Corn was seeded on May 14, 1974 in 36" rows with hills spaced 18 inches apart. Single row plots of 21 hills were 31.5' long. Blocks and tiers of plots were separated by a distance of six feet. Guard rows were planted to the east and west sides of rows running north and south with guard hills across the north and south ends of the entire planting. In addition to the other guard rows, 4 rows of an early maturing and a late maturing cultivar were planted on both the east and west sides of the entire planting of plots to enhance pollination. All plots were planted by hand jabber with 4 kernels per hill. Plants were thinned to 2 plants per hill at the 2 to 3 leaf stage.

Prior to plowing, 12-12-12 fertilizer was applied broadcast at the rate of 1000 pounds per acre. No additional fertilizer was applied during the season. Ramrod herbicide was applied, immediately after planting, at 5 pounds active ingredient per acre and watered in with sprinkler irrigation. No insecticides or fungicides were applied after planting. Most lots of seed had been treated with a fungicide and/or an insecticide.

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The following information on temperature was obtained from the official records of the United States Weather Bureau at the Port Columbus International Airport and the rainfall measurements were taken at the farm where the plots were located.

Weather Data

Month	Average Temperature (°F)	Total Rainfall (Inches)
May	60.8	4.3
June	67.7	6.7
July	73.6	0.6
August	74.0	4.5
September	65.2	1.8

On June 15, 1974 the plots received some damage from a hail storm. However, the corn was not large enough to be severely damaged.

Listed below are the seed companies which supplied the seed for these trials:

Code	Sources
A-1	Agway, Inc. Buffalo, N.Y. 14240
A-2	Asgrow Seed Co., Orange, Conn. 06477
F-1	E. A. Wolf, Florida A.E.E.C., Belle Glade, Florida 33430
F-2	Ferry-Morse Seed Co., Mountain View, Ca. 94042
H-1	Joseph Harris Co., Rochester, N. Y. 14624
N-1	Northrup-King & Co., Minneapolis, Minn. 55413
N-2	Niagara, FMC Corp., Modesto, Ca. 95618
O-1	The Ohio Seed Co., West Jefferson, Ohio 43162
R-1	Robson Quality Seeds, Inc., Hall, N.Y. 14463
S-2	Schlessman Seed Co., Milan, Ohio 44846
T-1	Otis S. Twilley Seed Co., Salisbury, Md. 21801

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The first harvest was made on July 24 and the last harvest on August 19. Of the Twenty-eight cultivars in the replicated trials, Sprite was harvested first, followed closely by Spring White and Sundance. The highest yielding cultivars in the replicated plots (Table 1) based on dozen of marketable ears harvested per acre were Capitan, Apache, Gold Cup and Bellringer. The first cultivar being the highest producing and the last cultivar the lower producer although the differences in yield are not significant. Capitan, Bellringer and Gold Cup were the highest yielding cultivars based on tons of unhusked ears of marketable corn. Gold Cup, Bellringer and Apache produced the highest percentage of marketable ears per acre. Commander had the heaviest husked ears in the replicated trials whereas Capitan had the longest husked ear. Tri-Gold and Commander had husked ears with the greatest diameter.

In terms of ear defects, smut was less of a problem in 1974 than during the 1973 crop year and ear worm injury being similar for both years.

There were several cultivars or lines in the non-replicated plots (Table 2), that produced at the rate of over 2000 dozen ears per acre. Some of these cultivars may be included in future replicated plots.

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TABLE 1 - Replicated trial: Yield and Other Characteristics of Sweet Corn Cultivars

Variety, Source and Lot Number [a]	Days to First Harvest	Marketable Yield/A			Average Wt. of Ears Unhusked (lbs.)	Average Length of Ears Husked (in.)	Average Diameter of Ears Husked (in.)	Ear Smut %	Ear Worm %	Birds %
		Dozens of Ears	Wt. (Tons)	Percent						
Sprite, H-1 142-368T	67	1,873	5.92	84.4	0.54	7.3	1.7	0	0	1.6
Spring White, H-1 139-3591F	68	1,805	5.35	77.2	0.49	6.8	1.5	0	2.1	0
Sundance, H-1 141-3681T	69	1,707	5.75	82.0	0.56	7.4	1.6	0	1.1	3.3
Spring Gold, H-1 137-3659F	70	1,727	4.83	85.8	0.47	6.8	1.6	0	1.2	0
Royal Crest, H-1 133-3398T	70	791	1.88	68.5	0.40	6.1	1.4	2.0	13.6	2.7
Seneca Star, R-1 1073	72	1,346	4.41	71.9	0.55	7.7	1.6	0.4	12.3	0
Golden Earlipak, O-1 3034 A	72	1,181	4.29	75.8	0.61	8.6	1.6	0	8.3	4.3
Harmony, H-1 121-3776	74	1,883	6.67	82.7	0.57	7.2	1.6	0.4	13.5	0.4
Golden Sensation 75, S-2	74	1,385	4.52	80.5	0.54	7.7	1.6	1.3	3.5	0
Yukon, N-1 37065-12202	77	1,717	5.84	80.6	0.57	8.6	1.6	1.6	2.3	2.6
Bellringer, H-1 102-3669	79	2,176	8.12	91.3	0.62	7.6	1.6	0	0.9	0.4
Butter and Sugar, T-1 C 3	79	1,873	4.80	73.0	0.43	7.0	1.6	1.2	0	0
Gold Cup, H-1 118-3673-F17	81	2,273	8.01	91.3	0.59	7.4	1.5	0.7	1.3	0
Triumphant, N-2 43225-7926	81	1,756	5.70	74.4	0.54	8.6	1.8	0	0	2.0
Apache, A-2 53532-F40	85	2,371	8.32	90.2	0.59	7.6	1.6	0.3	4.1	0.7
Tri-Gold, N-1 36833-10204	85	1,913	6.85	84.7	0.60	7.9	1.9	0.7	2.0	1.8
Preview, F-2 90003	85	1,590	6.74	81.7	0.71	8.4	1.8	5.5	0.6	1.5
Tendersweet, A-2 53530-F40	85	1,200	4.53	84.8	0.63	8.8	1.6	1.6	1.6	2.2
Capitan, A-2 33517- R40	87	2,488	9.03	86.1	0.61	9.0	1.6	0.3	1.6	0.3
Sweet Sue, H-1 143-3595-T185	87	1,659	6.08	85.1	0.61	8.4	1.7	0.4	0.5	0
Moonglow, H-1 126-3585 T17	87	1,483	5.45	77.6	0.61	8.3	1.5	0.4	0	0
F. M. Cross, Rapid Pak, F-2 92388	87	1,317	4.44	70.8	0.56	7.7	1.8	1.4	0	20.0
Silver Queen, H-1 134-3655 LF	90	1,893	6.50	78.1	0.57	8.2	1.4	3.5	0	0
Glacier, H-1 114-3583-F16	92	1,044	3.29	54.9	0.53	8.4	1.8	4.0	29.9	0.9
Silver Sensation S-2	93	1,786	6.40	77.3	0.60	8.4	1.7	0	3.8	0
Grand Master, H-1 120-3675	93	1,659	6.87	83.5	0.69	8.3	1.8	0.8	5.3	2.9
Silver 'N' Gold Sensation, S-2	93	1,532	5.15	65.2	0.56	8.4	1.8	0.3	8.9	0.9
Commander, A-253505-F40	98	1,044	4.82	62.8	0.77	8.8	1.9	4.7	10.3	3.4
LSD 5%		485	2.00							

a - Cultivars ranked according to days to first harvest and dozens of marketable ears per acre.

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TABLE 2 - Non-Replicated Observation Plots: Yield and Other Characteristics of Sweet Corn Cultivars

Variety, Source and [a] Lot Number	Days to First Harvest	Marketable Yield/A			Average Wt. of Ears Unhusked (lbs.)	Average Length of Ears Husked (In.)	Average Diameter of Ears Husked (In.)	Ear Smut %	Ear Worm %	Birds %
		Dozens of Ears	Wt. (Tons)	Percent						
Early Fortune, A-1 V701R	70	1,536	4.25	73.7	0.46	7.0	1.7	0	0	29.7
Earliking, N-1 36815 - 1220-1	70	845	3.32	68.2	0.65	6.4	1.6	2.3	9.1	14.0
Earliking, H-1 108-3695	70	691	1.98	56.6	0.48	7.4	1.6	0	0	42.1
Seneca 60-11, R-1 1643	70	423	1.43	46.5	0.56	7.6	1.5	2.8	0	30.6
XP-1329, A-2 F72332-R40	71	1,997	6.38	85.0	0.53	7.4	1.5	1.6	7.7	0
69-1689, R-2 38823	71	1,805	5.37	92.1	0.50	6.9	1.6	0	0	5.8
Buttercorn, A-1 V-708 B	71	1,460	5.25	90.1	0.60	7.8	1.6	2.3	2.6	4.6
XP-1343, A-2 53903-F40	71	1,421	5.88	78.7	0.69	7.2	1.6	0	0	3.0
NCX-2010, N-2 1973 Davis	71	1,114	2.97	54.0	0.44	6.8	1.7	3.8	0	42.0
72-1707, R-2 38112	71	999	2.58	67.1	0.43	6.1	1.4	0	7.7	25.0
144-Butter and Sugar, T-1 B-7	76	576	1,58	89.5	0.46	6.6	1.4	0	0	0
Seneca XP-193, R-1 9084	77	1,344	4.16	67.7	0.52	6.6	1.5	1.5	5.7	1.5
Eastern Belle, A-1 V-712 B	78	1,114	4.22	66.3	0.63	8.4	1.6	2.0	6.9	6.1
Fanfare, R-2 38100	79	999	3.51	49.9	0.59	7.6	1.7	1.8	23.1	16.4
Golden Sensation 65, S-2	79	423	1.53	41.9	0.62	6.4	1.6	0	18.2	4.2
Gold Crown, H-1 117-3672- T18	81	2,535	9.44	91.5	0.62	8.8	1.6	0	1.5	0
E-4209, F-1 90400	81	1,421	5.81	100.0	0.68	8.0	1.7	0	0	0
Northern Belle L, H-1 131L-3590-T18	81	1,421	6.54	89.3	0.77	7.2	1.8	0	0	0
E-4208, F-1 90400	84	1,152	5.60	86.5	0.81	8.8	1.8	2.3	0	0
70-2021, R-2 28101	84	499	2.21	39.3	0.74	8.4	1.8	0	0	28.6
NK-199, N-1 37177-13202	85	2,266	5.71	81.3	0.42	7.5	1.7	0	0	11.8
J. L. 49, H-1 3718	85	2,151	7.40	81.7	0.57	8.1	1.5	0	1.8	0
Bicolor, H-1 3713	85	2,036	10.81	82.3	0.88	9.6	1.6	0	0	0
Golden Sensation 85, S-2	85	2,036	4.50	70.2	0.41	8.6	1.7	0	3.8	0
Gold Winner, H-1 119-3497-F20	85	1,767	6.24	94.7	0.59	7.6	1.6	0	0	0
XP-362, A-2 M-7213L-F40	85	1,690	7.93	88.4	0.78	4.2	1.6	0	0	0
Seneca XP-208, R-1 73-P145/P157	85	1,613	7.14	88.6	0.74	7.4	1.8	0	0	0
NCX-243, N-2 1973 SJB	85	1,536	8.13	89.1	0.88	8.6	1.8	0	0	1.6
NCX-2004, N-2 1973 Idaho 7928	85	1,498	5.81	77.5	0.65	8.8	1.9	0	0	5.0

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TABLE 2 - (cont'd)

Variety, Source and Lot Number	Days to First Harvest	Marketable Yield/A			Average Wt. of Ears Unhusked (lbs.)	Average Length of Ears Husked (In.)	Average Diameter of Ears Husked (In.)	Ear Smut %	Ear Worm %	Birds %
		Dozens of Ears	Wt. (Tons)	Percent						
NK-51036, N-1 37333-10804	85	1,383	5.78	87.5	0.70	8.2	1.8	0	0	6.7
NCX-242, N-2 1972 Idaho	85	1,306	5.25	71.7	0.67	8.6	1.8	0	2.9	13.6
EXP-2583, N-1	85	1,191	4.61	69.4	0.65	8.8	1.6	0	0	5.5
NCX-2008, N-2 1973 SJB	85	960	3.63	66.3	0.63	8.6	1.9	4.8	4.0	6.4
EXP-2580, N-1 36828-2580	85	883	3.57	50.0	0.65	7.7	1.8	0	0	25.8
68-1974, R-2 38824	85	384	1.20	18.4	0.52	7.5	2.0	0	0	51.0
EE S - SH 449 C Florida AES 90CA	87	2,151	8.13	87.1	0.63	7.3	1.6	0	0	0
Bicolor Silver Queen, R-2 38070	87	2,074	7.44	84.8	0.60	8.0	1.6	1.4	0	0
67-57,H-1 3712	87	1,844	--- Data Lost -------			8.1	1.6	0	0	0
Seneca Scout, H-1 138-3693- LF	87	1,690	7.07	82.1	0.70	8.0	1.7	0	4.5	0
NCX-241, N-2 1973 Idaho 7929	87	1,613	7.11	82.8	0.74	8.6	1.7	0	0	1.5
Seneca XP-199,R-1 9094-CL	87	1,613	5.08	68.4	0.52	8.0	1.6	1.3	9.5	2.6
Stylepak, F-1 90441	87	1,152	5.58	75.4	0.81	8.8	2.0	1.8	13.3	0
XP-185A, H-1 3708	87	1,037	4.15	84.5	0.67	7.8	1.7	0	0	0
NCX-2007, N-2 1973 Davis	87	807	2.28	56.2	0.47	7.2	1.7	0	14.3	7.1
Seneca XP-192, R-1 1490	87	-----Damaged by coon---			0	0	0	0	0	0
XP-368, A-2 53534-F40	89	883	2.79	81.2	0.53	6.9	1.6	0	0	0
Midway,A-2 53521-F40	95	960	5.15	53.9	0.89	8.2	1.8	1.5	16.0	0
Florida Sweet, F-2 AES 75CABD	95	615	2.98	77.3	0.81	8.8	1.8	0	0	0
44-82, H-1 3711	98	1,268	5.21	81.6	0.68	8.4	1.8	0	6.1	1.9
Seneca Chief, R-1 1382	98	1,114	4.93	58.1	0.74	-	-	0	0	0
Florida Sweet,F-2 AES, 75CA	98	730	3.56	58.4	0.81	-	-	2.2	0	0
Jubilee, R-2 38725	98	230	1.34	20.9	0.97	7.4	1.9	2.0	0	40.0

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